



OPTIONAL LOADER/UNLOADER

The Streamline range Model SHADOW 750® Direct Metalisation System

The **CEMCO Streamline Range** Pat Pend. horizontal processor has been configured and qualified for use with **OMG Electronic Chemicals Shadow®** at a conveyor speed of 750mm/min. The **Shadow® system** is a unique process based on a graphite conductive colloid technology. The patented process uses crystalline graphite, combined with an adhesion-promoting polymer, to form an aqueous graphite suspension. **Shadow®** is a true direct plating process, designed to totally replace electroless copper as a through-hole metallisation technology.

The system comprises three basic stages: Stage 1) Cleaner and conditioner to the through-hole wall; Stage 2) Coating of a highly conductive graphite followed by a partial polymerisation and dry; Stage 3) Removal of the **Shadow®** coating from the panel copper surfaces, and dry. A number of options are available including automatic dosing, loading and unloading and higher throughput capacity.

PROCESS LINE OVERVIEW

1. Feed Conveyor with drive motor
2. Immersion Cleaner/Conditioner
3. Three-stage Cascade Mains Water Rinse
4. Immersion Shadow®
5. Immersion Fixer
6. Immersion Fixer Rinse
7. Panel Drier
8. Inspection Conveyor with Drive
9. Micro-Etch Spray
10. Two-stage Cascade DI Water Rinse
11. Anti-Tarnish
12. Single-stage DI Water Rinse
13. Panel Drier
14. Outfeed Conveyor with Drive

EQUIPMENT SPECIFICATION

Conveyor speed	: 0.750 mtr/minute
Conveyor working width	: 510mm & 610mm
Panel size	: Min. 305 mm x 150mm Max. 610mm width
Panel thickness	: 0.05 mm (inners plus copper) up to 3.2mm
Overall length	: 6021mm
Overall Width	: 1250 mm
Water consumption (rinsing)	: Mains 1-6 ltr/min aprox x 2, DI 1-6 ltr/ min x 1
Voltage	: 400V
Frequency	: 50 Hz

FEATURES & BENEFITS

- High efficiency, non-contact, **Streamline Fluid Engines** Pat Pend
- All polypropylene fabrication
- Easy access sliding covers
- Easy clean removable sumps
- 8 Roller process containment
- EPDM conveyor rollers used throughout for improved wear resistance and chemical compatibility
- All gears are manufactured from PVDF
- Direct drive, low torque transport system
- **Siemens PLC** control with touch-screen interface automatic fault detection etc
- Installation pack including bund tray, extraction ducts, drain and water manifolds etc
- Can be located against a wall
- Small footprint
- Low power
- Low water consumption
- Simple fast maintenance procedures
- Quick, easy access
- Flexible and rigid transport capability
- Low fluid losses